

ABSTRACT

[0048] The techniques and mechanisms described herein are directed to a system for performing garbage collection on a large heap that is divided into several cards which are grouped into bundles. The techniques include initiating a write-watch mechanism to track accesses to a card table that identifies marked cards. The write-watch mechanism provides a list of the written card table locations to a garbage collection process which determines marked bundles based on the list. For each marked bundle, the marked cards within the marked bundle are scanned to identify the accessed objects. The accessed objects are then collected. Because determining the marked bundles is performed at the start of the garbage collection process and not whenever the memory locations within the bundle are accessed, the present technique reduces the overhead associated with bundle marking and allows the efficiency of the garbage collection process to be less dependent on heap size.